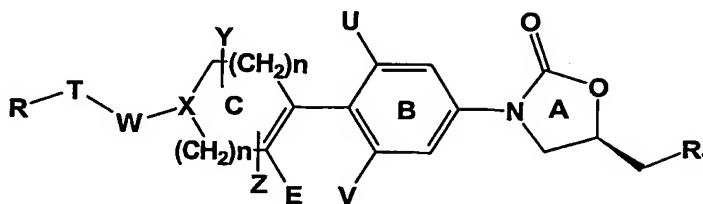


We Claim:

1. Compounds having the structure of Formula I:



Formula I

and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, polymorphs, enantiomers, diastereomers, N-oxides, prodrugs or metabolites, wherein

T is a five to seven membered heterocyclic ring, substituted heterocyclic ring, aryl, substituted aryl, bound to the ring C with a linker W, and further substituted by a group represented by R, wherein R is H, C₁₋₆ alkyl, F, Cl, Br, I, -CN, COR₅, COOR₅, N(R₆, R₇), NHCOC(R₈, R₉, R₁₀), CON(R₆, R₇), CH₂NO₂, NO₂, CH₂R₈, CHR₉, -CH=N-OR₁₀, -C=CH-R₅, OR₅, SR₅, -C(R₉)=C(R₉)NO₂, C₁₋₁₂ alkyl substituted with one or more F, Cl, Br, I, OR₄, SR₄, wherein R₄ is hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, aryl, heteroaryl, C₁₋₆ alkoxycarbonyl or C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I or OH; R₅ is H, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I or OH, aryl or heteroaryl; R₆ and R₇ are independently H, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy; R₈ and R₉ are independently H, C₁₋₆ alkyl, F, Cl, Br, I, C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br and I, OR₅, SR₄, N(R₆, R₇); R₁₀ = H, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl, aryl or heteroaryl; and

n is an integer in the range from 0 to 3;

X is CH, CH-S, CH-O, N or CHNR₁₁, wherein R₁₁ is hydrogen, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl, C₁₋₆ alkylcarbonyl, C₁₋₆ alkylcarboxy, aryl or heteroaryl;

E is hydrogen, hydroxy or lower alkyl (C₁-C₄);

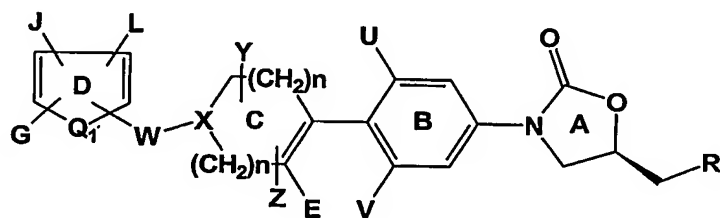
Y and Z are independently hydrogen, C₁₋₆ alkyl, C₃₋₁₂ cycloalkyl or C₀₋₃ bridging groups;

U and V are independently hydrogen, optionally substituted C₁₋₆ alkyl, F, Cl, Br, I, C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I;

W is (CH₂)_{0-n'}, CO, CH₂NH, -NHCH₂, -CH₂NHCH₂, -CH₂-N(R₁₁)CH₂-, CH₂(R₁₁)N-, CH(R₁₁), S, CH₂(CO), NH, O, NR₁₁, (CO)CH₂, N(R₁₁)CON(R₁₁), N(R₁₁)C(=S)N(R₁₁), SO₂, SO, wherein n' is an integer in the range from 0 to 3; R₁₁ is hydrogen, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl, C₁₋₆ alkylcarbonyl, C₁₋₆ alkylcarboxy, aryl or heteroaryl; and

R₁ is -NHC(=O)R₂, N(R₃,R₄), OR₃, -NR₂C(=S)R₃, -NR₂C(=S)SR₃, wherein R₂ is hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I, OH; R₃, R₄ are independently hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, aryl, heteroaryl, C₁₋₆ alkoxycarbonyl or C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I or OH.

2. Compounds having the structure of Formula II:



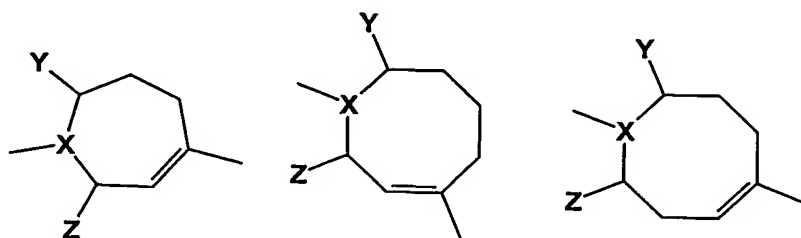
Formula II

and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein

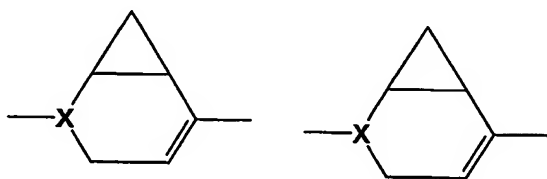
R₁ is -NHC(=O)R₂, -N(R₃,R₄), -NR₂C(=S)R₃, -NR₂C(=S)SR₃ or -OR₃, wherein R₂, R₃, R₄ are independently hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy,

- 11 aryl, heteroaryl, C₁₋₆ alkoxy carbonyl or C₁₋₆ alkyl substituted with one or more of
12 F, Cl, Br, I or OH;
- 13 U and V are independently hydrogen, optionally substituted C₁₋₆ alkyl, F, Cl, Br,
14 C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I;
- 15 Y and Z are independently hydrogen, C₁₋₆ alkyl, C₃₋₁₂ cycloalkyl, C₀₋₃ bridging
16 group;
- 17 X is CH, CH-S, CH-O, N or CHNR₁₁, wherein R₁₁ is hydrogen, optionally
18 substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl carbonyl, C₁₋₆
19 alkylcarboxy, aryl or heteroaryl;
- 20 E is hydrogen, hydroxy or lower alkyl (C₁₋₄);
- 21 W is (CH₂)_{0-n'}, C=O, CH₂NH, NHCH₂, CH₂NHCH₂, CH₂N(R₁₁)CH₂, CH₂N(R₁₁),
22 CH(R₁₁), S, CH₂(C=O), NH, O, (CO)CH₂, N(R₁₁)CON(R₁₁), SO₂, SO, NR₁₁,
23 N(R₁₁)C(=S)N(R₁₁), wherein n' is an integer in the range from 0 to 3; R₁₁ is
24 hydrogen, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆
25 alkyl carbonyl, C₁₋₆ alkylcarboxy, aryl or heteroaryl;
- 26 Q₁ is O, S or NR₁₁, wherein R₁₁ is as defined above;
- 27 G, J, L are independently H, C₁₋₆ alkyl, F, Cl, Br, I, -CN, COR₅, COOR₅,
28 N(R₆, R₇), NHCOC(R₈, R₉, R₁₀), CON(R₆, R₇), CH₂NO₂, NO₂, CH₂R₈, CHR₉, -CH
29 = N-OR₁₀, -C=CH-R₅, OR₅, SR₅, -C(R₉)=C(R₉)NO₂, C₁₋₁₂ alkyl substituted with
30 one or more of F, Cl, Br and I, OR₄, SR₄, wherein R₄ is as defined above; R₅ is H,
31 C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl substituted with one or more of
32 F, Cl, Br, I or OH, aryl or heteroaryl; R₆ and R₇ are independently H, optionally
33 substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy; R₈ and R₉ are independently
34 H, C₁₋₆ alkyl, F, Cl, Br, I, C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I,
35 OR₅, SR₄, N(R₆, R₇); R₁₀ = H, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆
36 alkoxy, C₁₋₆ alkyl, aryl or heteroaryl; and
- 37 n is an integer in the range from 0 to 3.

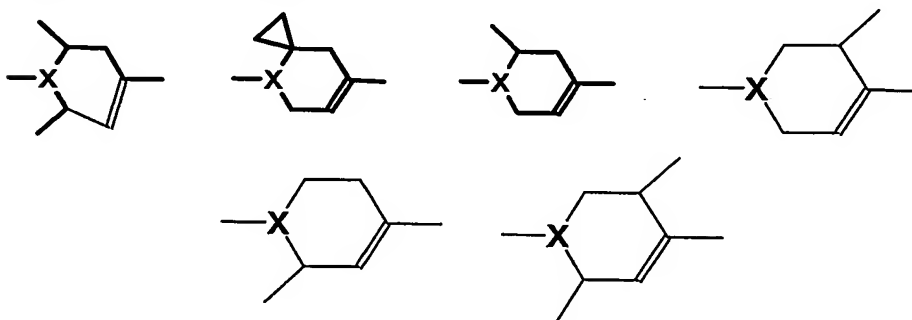
3. A compound according to claim 2, wherein in Formula II, ring C is 6-8 membered in size and the ring may have either two or three carbon atoms between each nitrogen atom, comprising:



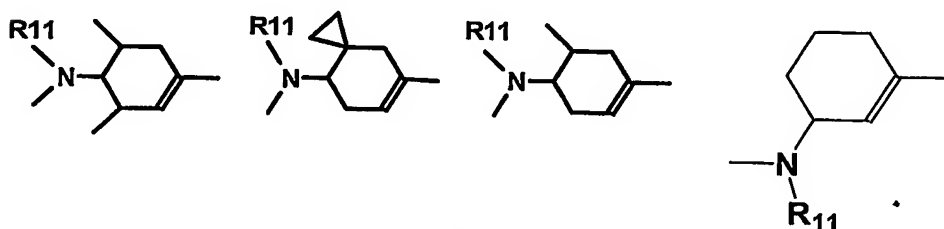
and the ring C may be bridged to form a bicyclic system as shown below:



4. A compound according to claim 2, wherein in Formula II, ring C is substituted at positions Y and Z with alkyl groups, cycloalkyl groups, fluoro group, carboxylic and corresponding esters, amides, substituted alkyls or bridging alkyl groups as shown below:

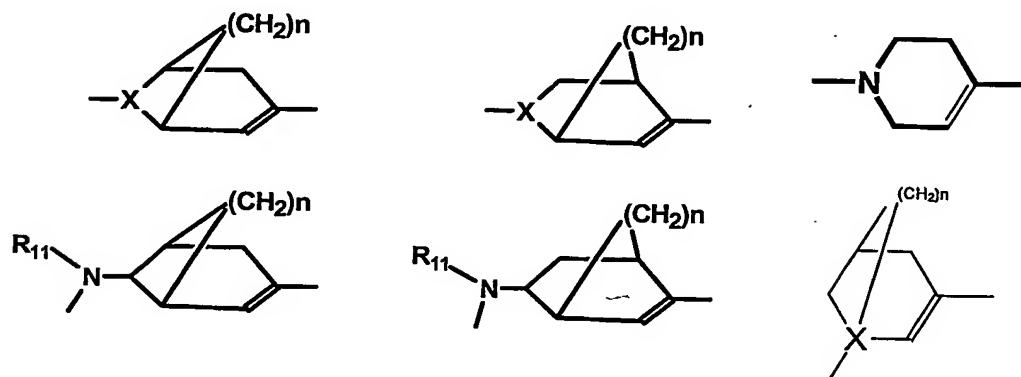


5. A compound according to claim 2, wherein in Formula II, ring C is 6-membered in size and X is -CH-(NHR), or -CHCH₂NHR-, the ring C is selected from the group consisting of the following rings wherein R₁₁ is as defined earlier,



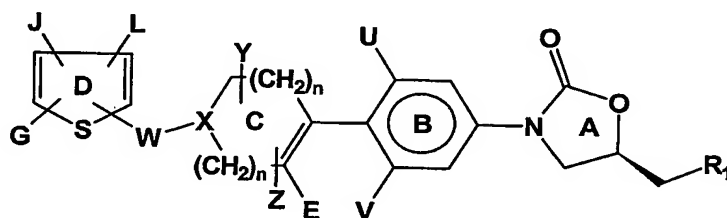


or in addition to the above, the ring C also includes the following structures:



wherein n is as defined earlier.

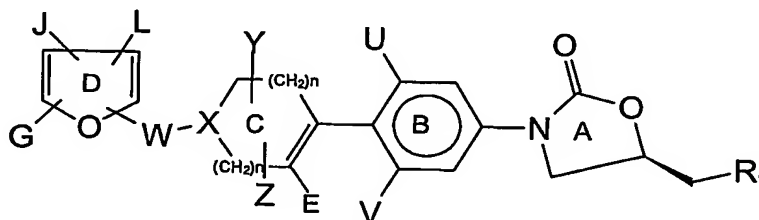
6. A compound according to claim 2 having the structure of Formula III,



Formula III

wherein R, U, V, Y, Z, E, X, W, G, J, L and n are as defined earlier.

7. A compound according to claim 2 having the structure of Formula IV,



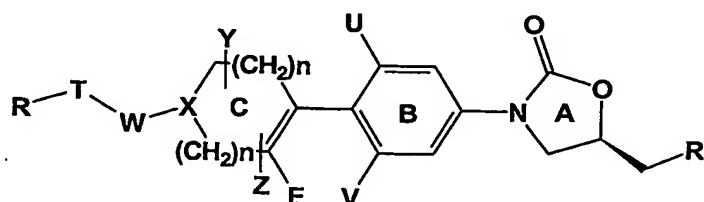
Formula IV

wherein R₁, U, V, X, Y, Z, E, W, G, J, L and n are as defined earlier.

- 1 8. A compound selected from the group consisting of:
- 2 (S)-N-[[3-[3-Fluoro-4-[N-1-{2-furyl(5-nitro)methyl} 1,2,5,6-tetrahydropyrid-4-yl]
- 3 phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide (Compound No. 1)
- 4 (S)-N-[[3-[3-Fluoro- 4-[N-1-{2-thienyl (5-nitro) methyl}] 1,2,5,6-tetrahydropyrid-
- 5 4-yl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide (Compound No. 2)
- 6 (S)-N-[[3-[3-Fluoro-4-[N-1-{2-thienoyl(5-nitro)}-1,2,5,6-tetrahydropyrid-4-
- 7 yl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide (Compound No. 3)
- 8 5(S)-Isoxazol-3-yl-amino-(N-t-butoxycarbonyl)-N-methyl-3-[3-Fluoro-4-[N-1-(5-
- 9 nitro-2-furyl)methyl] 1,2,5,6-tetrahydropyrid-4-yl]phenyl]oxazolidin-2-one
- 10 (Compound No. 4)
- 11 5(S)-Isoxazol-3-yl-aminomethyl-3-[3-Fluoro-4-[N-1-(5-nitro-2-
- 12 furyl)methyl] 1,2,5,6-tetrahydropyrid-4-yl]phenyl]oxazolidin-2-one (Compound
- 13 No. 5).
- 1 9. A pharmaceutical composition comprising a compound of claims 1, 2, or 8 and a
- 2 pharmaceutical acceptable carrier.
- 1 10. A pharmaceutical composition comprising a pharmaceutically effective amount of a
- 2 compound according to claims 1, 2 or 8 or a physiologically acceptable acid
- 3 addition salt thereof with a pharmaceutically acceptable carrier for treating
- 4 microbial infections.
- 1 11. A method of treating or preventing microbial infections in a mammal comprising
- 2 administering to said mammal, the pharmaceutical composition according to claim
- 3 9.
- 1 12. The method according to claim 11, wherein the microbial infections are caused by
- 2 gram-positive and gram-negative bacteria.
- 1 13. The method according to claim 12, wherein the gram-positive bacteria are selected
- 2 from the group consisting of staphylococcus spp., streptococcus spp., enterococci

spp., bacillus spp., corynebacterium spp., clostridia spp., peptostreptococcus spp., listeria spp. and legionella spp.

14. A method of treating or preventing aerobic and anaerobic bacterial infections in a mammal comprising administering to said mammal, a therapeutically effective amount of a compound having the structure of Formula I



Formula I

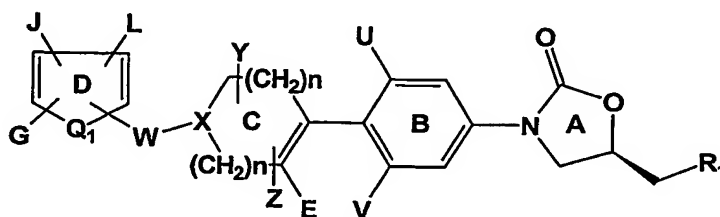
and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates; esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein

T is a five to seven membered heterocyclic ring, substituted heterocyclic ring, aryl, substituted aryl, bound to the ring C with a linker W, and are further substituted by a group represented by R, wherein R is H, C₁₋₆ alkyl, F, Cl, Br, I, -CN, COR₅, COOR₅, N(R₆,R₇), NHCOC(R₈, R₉, R₁₀), CON(R₆,R₇), CH₂NO₂, NO₂, CH₂R₈, CHR₉, -CH=N-OR₁₀, -C=CH-R₅, OR₅, SR₅, -C(R₉)=C(R₉)NO₂, C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I, OR₄, SR₄, wherein R₄ is hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, aryl, heteroaryl, C₁₋₆ alkoxycarbonyl or C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I or OH; R₅ is H, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I or OH, aryl or heteroaryl; R₆ and R₇ are independently H, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy; R₈ and R₉ are independently H, C₁₋₆ alkyl, F, Cl, Br, I, C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br and I, OR₅, SR₄, N(R₆,R₇); R₁₀= H, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl, aryl or heteroaryl; and

n is an integer in the range from 0 to 3;

- 26 X is CH, CH-S, CH-O, N or CHNR₁₁, wherein R₁₁ is hydrogen, optionally
 27 substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl, C₁₋₆ alkylcarbonyl,
 28 C₁₋₆ alkylcarboxy, aryl or heteroaryl;
- 29 E is hydrogen, hydroxy or lower alkyl (C₁₋₄);
- 30 Y and Z are independently hydrogen, C₁₋₆ alkyl, C₃₋₁₂ cycloalkyl or C₀₋₃ bridging
 31 groups;
- 32 U and V are independently hydrogen, optionally substituted C₁₋₆ alkyl, F, Cl, Br, I,
 33 C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I;
- 34 W is (CH₂)_{0-n'}, CO, CH₂NH, -NHCH₂, -CH₂NHCH₂, -CH₂-N(R₁₁)CH₂-,
 35 CH₂(R₁₁)N-, CH(R₁₁), S, CH₂(CO), NH, O, NR₁₁, (CO)CH₂, N(R₁₁)CON(R₁₁),
 36 N(R₁₁)C(=S)N(R₁₁), SO₂, SO, wherein n' is an integer in the range from 0 to 3; R₁₁
 37 is hydrogen, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆
 38 alkyl, C₁₋₆ alkylcarbonyl, C₁₋₆ alkylcarboxy, aryl or heteroaryl; and
- 39 R₁ is -NHC(=O)R₂, N(R₃, R₄), OR₃, -NR₂C(=S)R₃, -NR₂C(=S)SR₃, wherein R₂ is
 40 hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl substituted with one
 41 or more of F, Cl, Br, I, OH; R₃, R₄ are independently hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂
 42 cycloalkyl, C₁₋₆ alkoxy, aryl, heteroaryl, C₁₋₆ alkoxycarbonyl or C₁₋₆ alkyl
 43 substituted with one or more of F, Cl, Br, I or OH.

- 1 15. A method of treating or preventing aerobic and anaerobic bacterial infections in
 2 mammal comprising administering to said mammal, a therapeutically effective
 3 amount of a compound having the structure of Formula II



Formula II

and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein

R_1 is $-NHC(=O)R_2$, $-N(R_3, R_4)$, $-NR_2C(=S)R_3$, $-NR_2C(=S)SR_3$ or $-OR_3$, wherein R_2 , R_3 , R_4 are independently hydrogen, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, aryl, heteroaryl, C_{1-6} alkoxycarbonyl or C_{1-6} alkyl substituted with one or more of F, Cl, Br, I or OH;

U and V are independently hydrogen, optionally substituted C_{1-6} alkyl, F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I;

Y and Z are independently hydrogen, C_{1-6} alkyl, C_{3-12} cycloalkyl, C_{0-3} bridging group;

X is CH, CH-S, CH-O, N or $CHNR_{11}$, wherein R_{11} is hydrogen, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl carbonyl, C_{1-6} alkylcarboxy, aryl or heteroaryl;

E is hydrogen, hydroxy or lower alkyl (C_1 - C_4);

W is $(CH_2)_{0-n'}$, C=O, CH_2NH , $NHCH_2$, CH_2NHCH_2 , $CH_2N(R_{11})CH_2$, $CH_2N(R_{11})$, $CH(R_{11})$, S, $CH_2(C=O)$, NH, O, $(CO)CH_2$, $N(R_{11})CON(R_{11})$, SO_2 , SO, NR_{11} , $N(R_{11})C(=S)N(R_{11})$, wherein n' is an integer in the range from 0 to 3; R_{11} is hydrogen, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl carbonyl, C_{1-6} alkylcarboxy, aryl or heteroaryl;

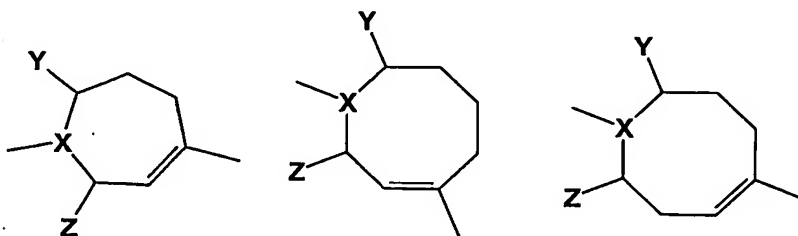
Q_1 is O, S or NR_{11} , wherein R_{11} is as defined above;

G, J, L are independently H, C_{1-6} alkyl, F, Cl, Br, I, $-CN$, COR_5 , $COOR_5$, $N(R_6, R_7)$, $NHCOC(R_8, R_9, R_{10})$, $CON(R_6, R_7)$, CH_2NO_2 , NO_2 , CH_2R_8 , CHR_9 , $-CH=N-OR_{10}$, $-C=CH-R_5$, OR_5 , SR_5 , $-C(R_9)=C(R_9)NO_2$, C_{1-12} alkyl substituted with one or more of F, Cl, Br and I, OR_4 , SR_4 , wherein R_4 is as defined above; R_5 is H, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more of F, Cl, Br, I or OH, aryl or heteroaryl; R_6 and R_7 are independently H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy; R_8 and R_9 are independently

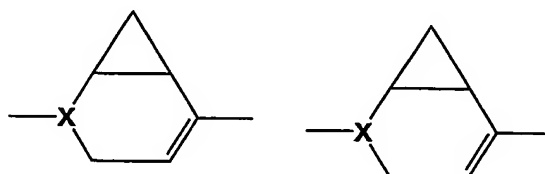
36 H, C₁₋₆ alkyl, F, Cl, Br, I, C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I,
 37 OR₅, SR₄, N(R₆,R₇); R₁₀= H, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl,
 38 C₁₋₆ alkoxy, C₁₋₆ alkyl, aryl or heteroaryl; and

39 n is an integer in the range from 0 to 3.

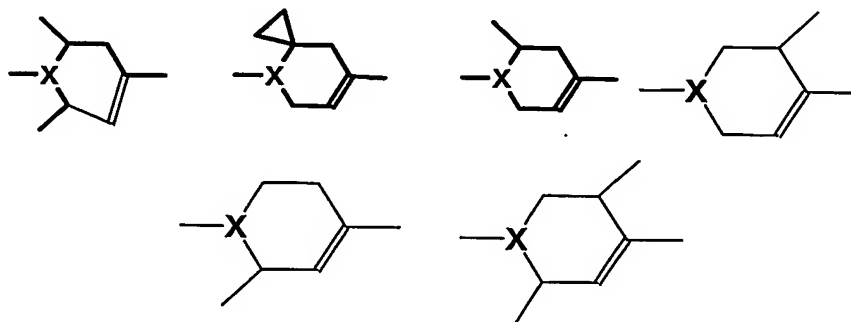
1 16. The method according to claim 15 wherein in Formula II, the ring C is 6-8
 2 membered in size and the ring may have either two or three carbon atoms between
 3 each nitrogen atom, comprising



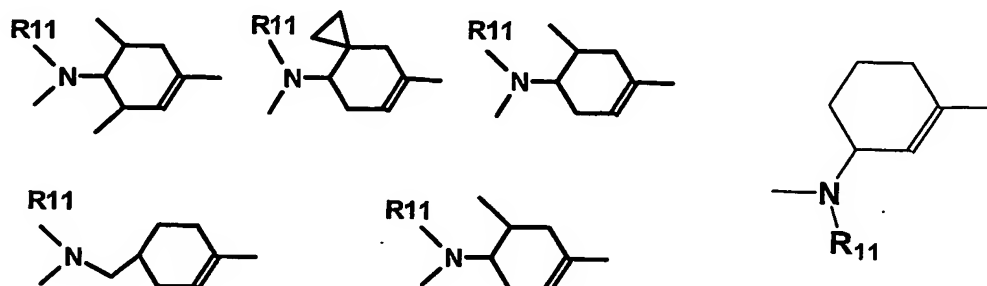
8 and the ring C may be bridged to form a bicyclic system as shown below:



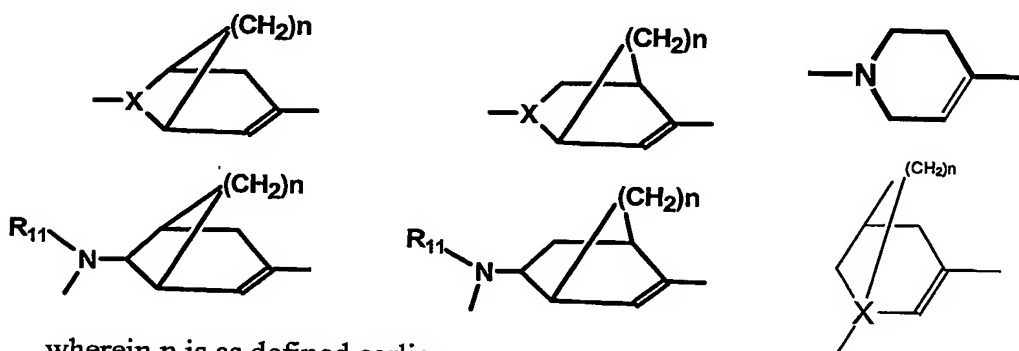
1 17. The method according to claim 15, wherein in Formula II, the ring C is substituted
 2 at positions Y and Z with alkyl groups, cycloalkyl groups, fluoro group, carboxylic
 3 and corresponding esters, amides, substituted alkyls or bridging alkyl groups as
 4 shown below:



18. The method according to claim 15, wherein in Formula II, the ring C is 6-membered in size and X is -CH-(NHR), or -CHCH₂NHR-, the ring C is selected from the group consisting of the following rings wherein R₁₁ is as defined earlier,

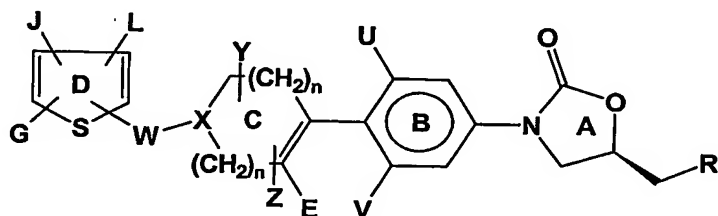


or in addition to the above, the ring C also includes the following structures:



wherein n is as defined earlier.

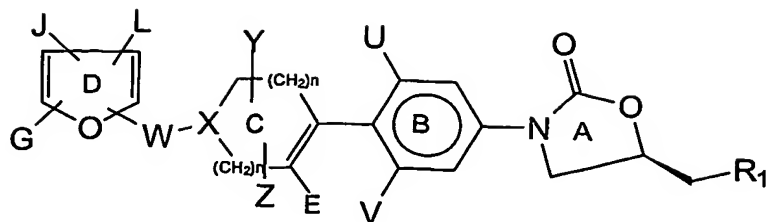
19. The method according to claim 15 having the structure of Formula III,



Formula III

wherein R₁, U, V, E, Y, Z, X, W, G, J, L and n are as defined earlier.

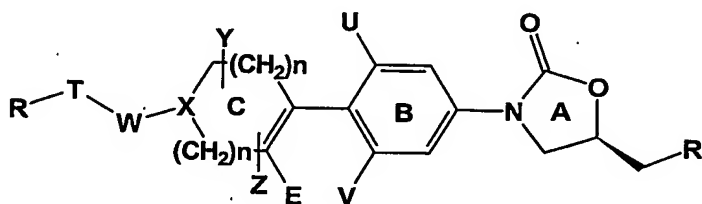
20. The method according to claim 15 having the structure of Formula IV



Formula IV

wherein R_1 , U , V , X , Y , Z , W , G , J , L , E and n are as defined earlier.

21. A process for preparing compounds of Formula I:



Formula I

and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein

T is a five to seven membered heterocyclic ring, substituted heterocyclic ring, aryl, substituted aryl, bound to the ring C with a linker W , and further substituted by a group represented by R , wherein R is H , C_{1-6} alkyl, F , Cl , Br , I , $-CN$, COR_5 , $COOR_5$, $N(R_6, R_7)$, $NHCOC(R_8, R_9, R_{10})$, $CON(R_6, R_7)$, CH_2NO_2 , NO_2 , CH_2R_8 , CHR_9 , $-CH=N-OR_{10}$, $-C=CH-R_5$, OR_5 , SR_5 , $-C(R_9)=C(R_9)NO_2$, C_{1-12} alkyl substituted with one or more of F , Cl , Br , I , OR_4 , SR_4 , wherein R_4 is hydrogen, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, aryl, heteroaryl, C_{1-6} alkoxycarbonyl or C_{1-6} alkyl substituted with one or more of F , Cl , Br , I or OH ; R_5 is H , C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more F , Cl , Br , I or OH , aryl or heteroaryl; R_6 and R_7 are independently H , optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy; R_8 and R_9 are independently H , C_{1-6} alkyl, F , Cl , Br , I , C_{1-12} alkyl substituted with one or more of F , Cl , Br and I , OR_5 , SR_4 ,

N(R₆,R₇); R₁₀= H, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl, aryl or heteroaryl;

n is an integer in the range from 0 to 3;

X is CH, CH-S, CH-O, N or CHNR₁₁, wherein R₁₁ is hydrogen, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl, C₁₋₆ alkylcarbonyl, C₁₋₆ alkylcarboxy, aryl or heteroaryl;

E is hydrogen, hydroxy or lower alkyl (C₁₋₄);

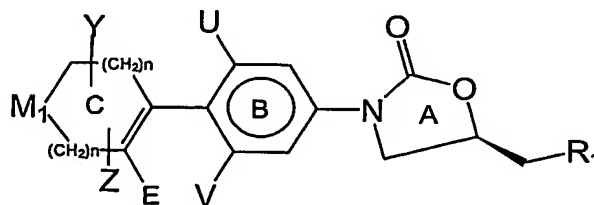
Y and Z are independently hydrogen, C₁₋₆ alkyl, C₃₋₁₂ cycloalkyl or C₀₋₃ bridging groups;

U and V are independently hydrogen, optionally substituted C₁₋₆ alkyl, F, Cl, Br, I, C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I;

W is (CH₂)_{0-n'}, CO, CH₂NH, -NHCH₂, -CH₂NHCH₂, -CH₂-N(R₁₁)CH₂-, CH₂(R₁₁)N-, CH(R₁₁), S, CH₂(CO), NH, O, NR₁₁, (CO)CH₂, N(R₁₁)CON(R₁₁), N(R₁₁)C(=S)N(R₁₁), SO₂, SO, wherein n' is an integer in the range from 0 to 3; R₁₁ is hydrogen, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl, C₁₋₆ alkylcarbonyl, C₁₋₆ alkylcarboxy, aryl or heteroaryl; and

R₁ is -NHC(=O)R₂, N(R₃,R₄), OR₃, -NR₂C(=S)R₃, -NR₂C(=S)SR₃, wherein R₂ is hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I, OH; R₃, R₄ are independently hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, aryl, heteroaryl, C₁₋₆ alkoxycarbonyl or C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I or OH;

comprising reacting an amine compound of Formula V



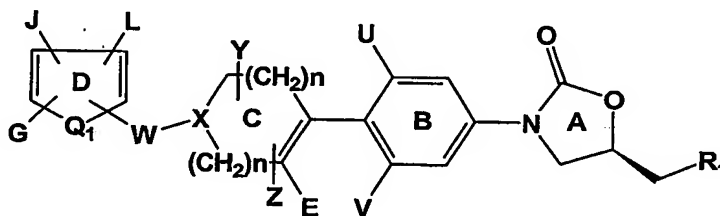
Formula V

with a heteroaromatic compound of Formula R-T-W-R₁₂, wherein M₁ is selected from the group consisting of NH, NHR₁₃, -CH₂NR₁₃, wherein R₁₃ is H, ethyl, methyl, isopropyl, acetyl, cyclopropyl, alkoxy and R, T, W, R₁, U, V, Y, Z and E are as defined earlier and R₁₂ is a suitable leaving group selected from the group consisting of fluoro, chloro, bromo, SCH₃, -SO₂CH₃, -SO₂CF₃, Tos, OC₆H₅, -COOH or -CHO.

22. The process according to claim 21 for preparing compounds of Formula I, wherein W=CH₂ and R-T-W-R₁₂ is a heteroaromatic compound with an aldehyde group and the compound of Formula I is produced by reductive amination.

23. The process according to claim 21 for preparing compounds of Formula I, wherein W=CO and the amine compound of Formula V is acylated with activated esters in the presence of condensing agents selected from the group consisting of 1,3-dicyclohexylcarbodiimide (DCC) and 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide (EDC).

24. A process for preparing compounds of Formula II



Formula II

and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein

R₁ is -NHC(=O)R₂, -N(R₃,R₄), -NR₂C(=S)R₃, -NR₂C(=S)SR₃ or -OR₃, wherein R₂, R₃, R₄ are independently hydrogen, C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, aryl, heteroaryl, C₁₋₆ alkoxy carbonyl or C₁₋₆ alkyl substituted with one or more of F, Cl, Br, I or OH;

12 U and V are independently hydrogen, optionally substituted C₁₋₆ alkyl, F, Cl, Br,
13 C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I;

14 Y and Z are independently hydrogen, C₁₋₆ alkyl, C₃₋₁₂ cycloalkyl, C₀₋₃ bridging
15 group;

16 X is CH, CH-S, CH-O, N or CHNR₁₁, wherein R₁₁ is hydrogen, optionally
17 substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl carbonyl, C₁₋₆
18 alkylcarboxy, aryl or heteroaryl;

19 E is hydrogen, hydroxy or lower alkyl (C₁₋₄);

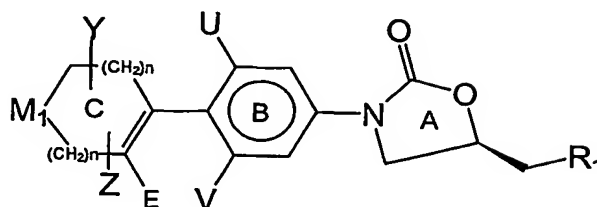
20 W is (CH₂)_{0-n'}, C=O, CH₂NH, NHCH₂, CH₂NHCH₂, CH₂N(R₁₁)CH₂, CH₂N(R₁₁),
21 CH(R₁₁), S, CH₂(C=O), NH, O, (CO)CH₂, N(R₁₁)CON(R₁₁), SO₂, SO, NR₁₁,
22 N(R₁₁)C(=S)N(R₁₁), wherein n' is an integer in the range from 0 to 3; R₁₁ is
23 hydrogen, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl
24 carbonyl, C₁₋₆ alkylcarboxy, aryl or heteroaryl;

25 Q₁ is O, S or NR₁₁, wherein R₁₁ is as defined above;

26 G, J, L are independently H, C₁₋₆ alkyl, F, Cl, Br, I, -CN, COR₅, COOR₅,
27 N(R₆,R₇), NHCOC(R₈,R₉,R₁₀), CON(R₆,R₇), CH₂NO₂, NO₂, CH₂R₈, CHR₉,
28 -CH=N-OR₁₀, -C=CH-R₅, OR₅, SR₅, -C(R₉)=C(R₉)NO₂, C₁₋₁₂ alkyl substituted with
29 one or more of F, Cl, Br and I, OR₄, SR₄; wherein R₄ is the same as above; R₅ is H,
30 C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy, C₁₋₆ alkyl substituted with one or more of
31 F, Cl, Br, I or OH, aryl or heteroaryl; R₆ and R₇ are independently H, optionally
32 substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆ alkoxy; R₈ and R₉ are independently H,
33 C₁₋₆ alkyl, F, Cl, Br, I, C₁₋₁₂ alkyl substituted with one or more of F, Cl, Br, I, OR₅,
34 SR₄, N(R₆,R₇); R₁₀= H, optionally substituted C₁₋₁₂ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₆
35 alkoxy, C₁₋₆ alkyl, aryl or heteroaryl; and

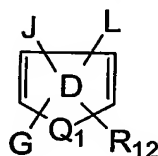
36 n is an integer in the range from 0 to 3;

comprising reacting a compound of Formula V



Formula V

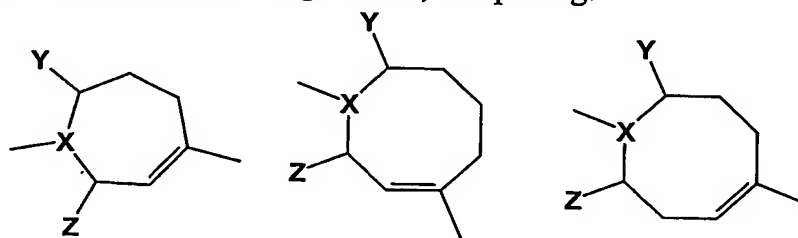
with a heteroaromatic compound of Formula VI



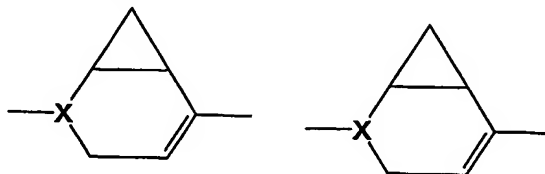
Formula VI

wherein M_1 is NH , NHR_{13} , $-CH_2NR_{13}$, wherein R_{13} is H , ethyl, methyl, isopropyl, acetyl, cyclopropyl, alkoxy and R , T , W , R_1 , U , V , Y , Z , G , J , L , n , Q_1 and E are as defined earlier and R_{12} is a suitable leaving group selected from the group consisting of fluoro, chloro, bromo, SCH_3 , $-SO_2CH_3$, $-SO_2CF_3$, Tos , OC_6H_5 , $-COOH$ or $-CHO$.

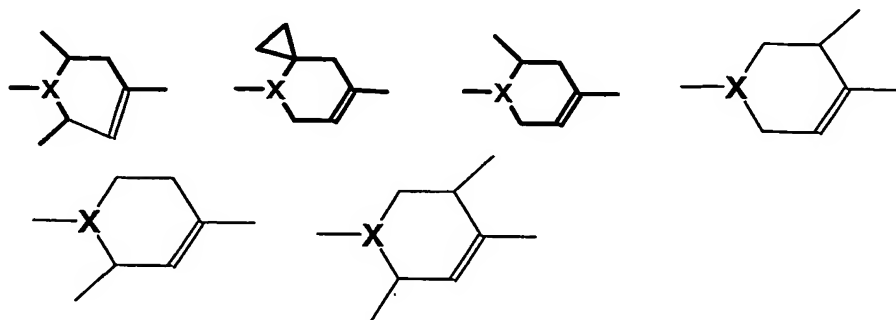
25. The process according to claim 24 for preparing compounds of Formula II, wherein ring C is 6-8 membered in size and the ring may have either two or three carbon atoms between each nitrogen atom, comprising:



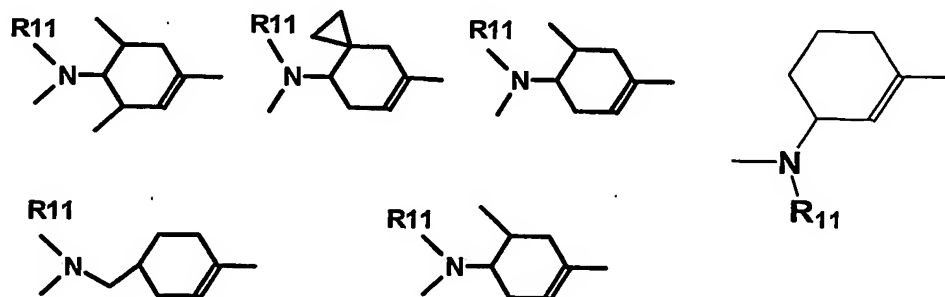
and the ring C may be bridged to form a bicyclic system as shown below:



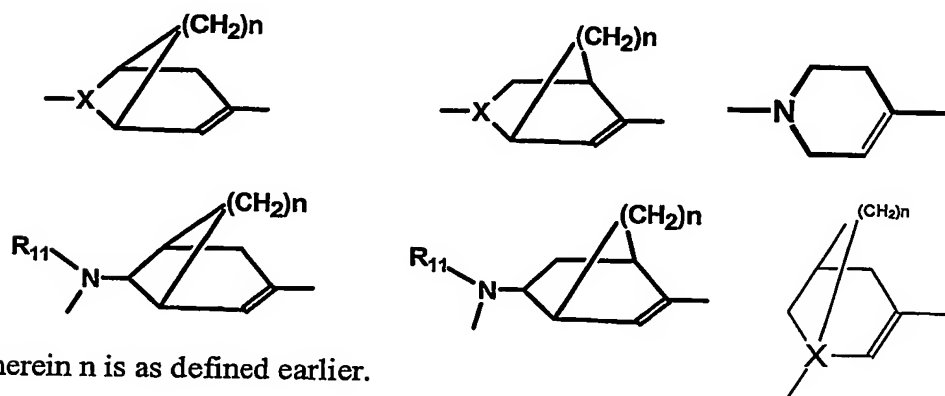
26. The process according to claim 24 for preparing compounds of Formula II, wherein ring C is substituted at positions Y and Z with alkyl groups, cycloalkyl groups, fluoro group, carboxylic and corresponding esters, amides, substituted alkyls or bridging alkyl groups as shown below:



27. The process according to claim 24 for preparing compounds of Formula II, wherein ring C is 6-membered in size and X is $-\text{CH}(\text{NHR})$, or $-\text{CHCH}_2\text{NHR}-$, the ring C is selected from the group consisting of the following rings wherein R_{11} is as defined earlier;

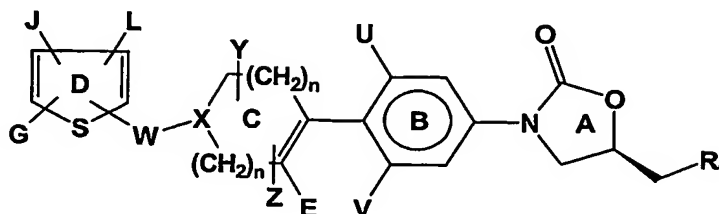


or in addition to the above, the ring C also includes the following structures:



wherein n is as defined earlier.

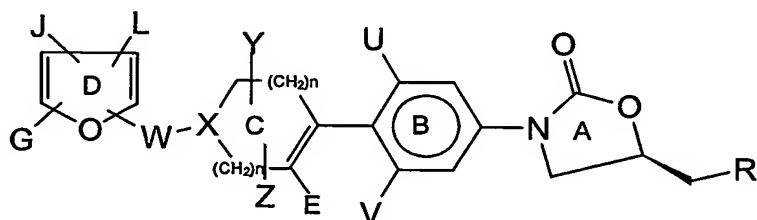
28. The process according to claim 24 having the structure of Formula III



Formula III

wherein R_1 , U, V, Y, Z, E, X, W, G, J, L and n are as defined earlier.

29. The process according to claim 24 having the structure of Formula IV



Formula IV

wherein R_1 , U, V, X, Y, Z, W, G, J, L, E and n are as defined earlier.

30. The process of claim 24, wherein the amine of Formula V reacts with a heteroaromatic compound of Formula VI in a solvent selected from the group consisting of dimethylformamide, dimethylacetamide, ethanol and ethylene glycol.

31. The process of claim 24, wherein the reaction of amine of Formula V with a heteroaromatic compound of Formula VI is carried out in the presence of a base selected from the group consisting of triethylamine, diisopropylamine, potassium carbonate and sodium bicarbonate.

32. The process of claim 24, wherein the reaction is carried out at a temperature ranging from about -70°C to about 180°C .

- 1 33. The process of claim 24, wherein the heteroaromatic compound of Formula VI is
2 furaldehyde.
- 1 34. The process of claim 24, wherein the heteroaromatic compound of Formula VI is
2 2- furoic acid.